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Journal: Optics Express

Paper: Single-longitudinal mode laser structure based on a very narrow filtering technique

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Abstract: A narrow filtering technique based on the spectral overlapping of two uniform FBGs and applied to obtain a Single Longitudinal Mode (SLM) laser is proposed and demonstrated in the work. The two FBGs are spectrally detuned to reduce their coincident reflection response narrowing the equivalent filter bandwidth. A proof-of-concept linear laser has been built and tested exhibiting SLM operation with temperature and strain variations.